



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,071	12/21/2000	Kazuo Ishii	Q62336	7426

7590 12/18/2002
SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue
Washington, DC 20037-3213

EXAMINER

BROOKE, MICHAEL S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,071

Applicant(s)

ISHII ET AL.

Examiner

Michael S. Brooke

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,5,7,8 and 11-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/02 has been entered.

Election/Restrictions

2. Claims 2, 4, 5, 7, 8 and 11-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.
3. Applicant's election without traverse of species 2 in Paper No. 8 is acknowledged.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Kurotori (JP 03169644) in view of Saito et al. (4,752,784) and Saito (4,540,996).

Kurotori teaches an ink jet printer comprising a print head (1) which discharges an oily ink, containing a resin and a coloring component, directly onto a recording paper (P). The image is fixed on the recording paper by a heating roller (4). The steps of fixing the image, forming the image using an oily ink are deemed to be rendered inherent in view of the functions of the apparatus of Kurotori. That is, when Kurotori performs its intended function, it would necessarily perform the above recited method steps.

Kurotori teaches the claimed invention with the exception of an ink jet system ejecting ink with an electrostatic field and sequentially using two or more inks.

Saito et al. ('784) teaches an ink jet recording method, wherein an ink jet head uses a combination of thermal energy and an electrostatic field to eject ink. This method of ejecting ink provides the advantages of increased durability, improved jetting accuracy, improved color imaging and improved recording speed (col. 2:4-27).

It would have been obvious to one of ordinary skill in the ink jet art at the time the invention was made to have provided Kurotori with an electrostatic ejection system, as taught by Saito et al., in order to provide the advantages of increased durability, improved jetting accuracy, improved color imaging and improved recording speed.

Saito ('996) teaches an ink jet print head which sequentially deposits drops of different color inks onto a recording medium, in order to form a color image (col. 5:62-66). The step of sequential printing is deemed to be rendered inherent in view of the

Art Unit: 2853

functions of the apparatus of Saito. That is, when Saito perform its intended function, it would necessarily perform the above recited method step.

It would have been obvious to one of ordinary skill in the ink jet art at the time the invention was made to have provided Kurotori an ink jetting unit which sequentially ejects different color inks, in order to form a color image, as taught by Saito.

6. Claims 3, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurotori (JP 03169644) in view of Saito et al. (4,752,784) and Saito (4,540,996), as applied to claims 1 and 6 above, and further in view of Carley (4,314,263).

Kurotori, as modified, teaches the claimed invention with the exception of at least one of a malfunction detecting member and a malfunctioning cause eliminating member, temporarily stopping image formation or operating the malfunction cause eliminating member and the malfunction cause eliminating member being a unit which detects adhesion of foreign matter on the head.

Carley teaches (col. 5:56-68 and col. 6:1-3) a fluid jet printing apparatus having a cleaning unit (34) which prevents the nozzle tip (32) from being fouled by foreign matter. The cleaning means has a continuously operating means for detecting foreign matter at the tip, and for automatically activating the cleaning means when fluid flow is impaired. The cleaning may be performed by various methods, such as heat, a chemical solvent, or mechanical wiping.

It would have been obvious to one of ordinary skill in the ink jet art to have provided in Kurotori, as modified, a nozzle cleaning unit, as taught by Carley, for the purpose of preventing the nozzle from being fouled.

Art Unit: 2853

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. Brooke whose telephone number is 703-305-0262. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.



Michael S. Brooke
Examiner
Art Unit 2853

MSB
December 13, 2002